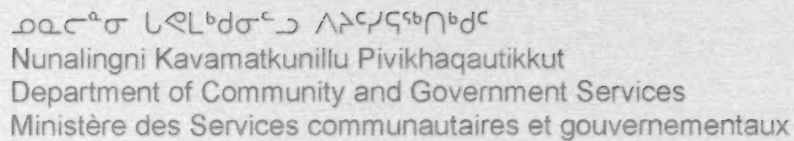


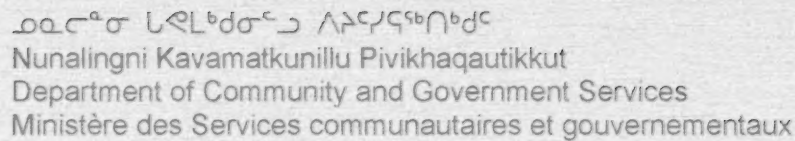


March 1, 2006



Community and Government Services (CGS) is responsible to ensure all departments located in the various Nunavut communities, have the facilities, equipment and communication systems they need to support their operations. To accomplish this, we:

- Our client base encompasses GN departments, boards and agencies. In the development and delivery of our services, CGS also works closely with many partners, including the Government of Canada, Nunavut Tunngavik Inc., Regional Inuit Associations and Municipal Councils.**

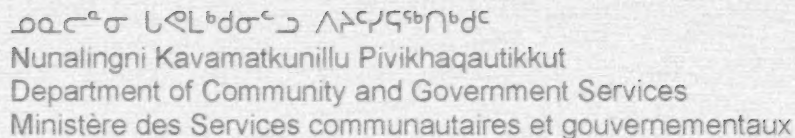


What is the guide for?

- ✓ To help clients access the services available from CGS for project planning and delivery.
- ✓ To develop effective client relationships.
- ✓ To improve client satisfaction with the project planning and delivery process.

A formula for successful projects:

Good Planning	+	Effective Project Management	=	Successful Projects
<ul style="list-style-type: none"> • needs analysis • feasibility studies • operational plan • functional program • effective budgeting 		<ul style="list-style-type: none"> • community consultation • cost control • construction approaches • technical standards • scheduling 		<ul style="list-style-type: none"> • community/client satisfaction • quality design • increase local employment • quality construction • economical



Who is the guide aimed at?

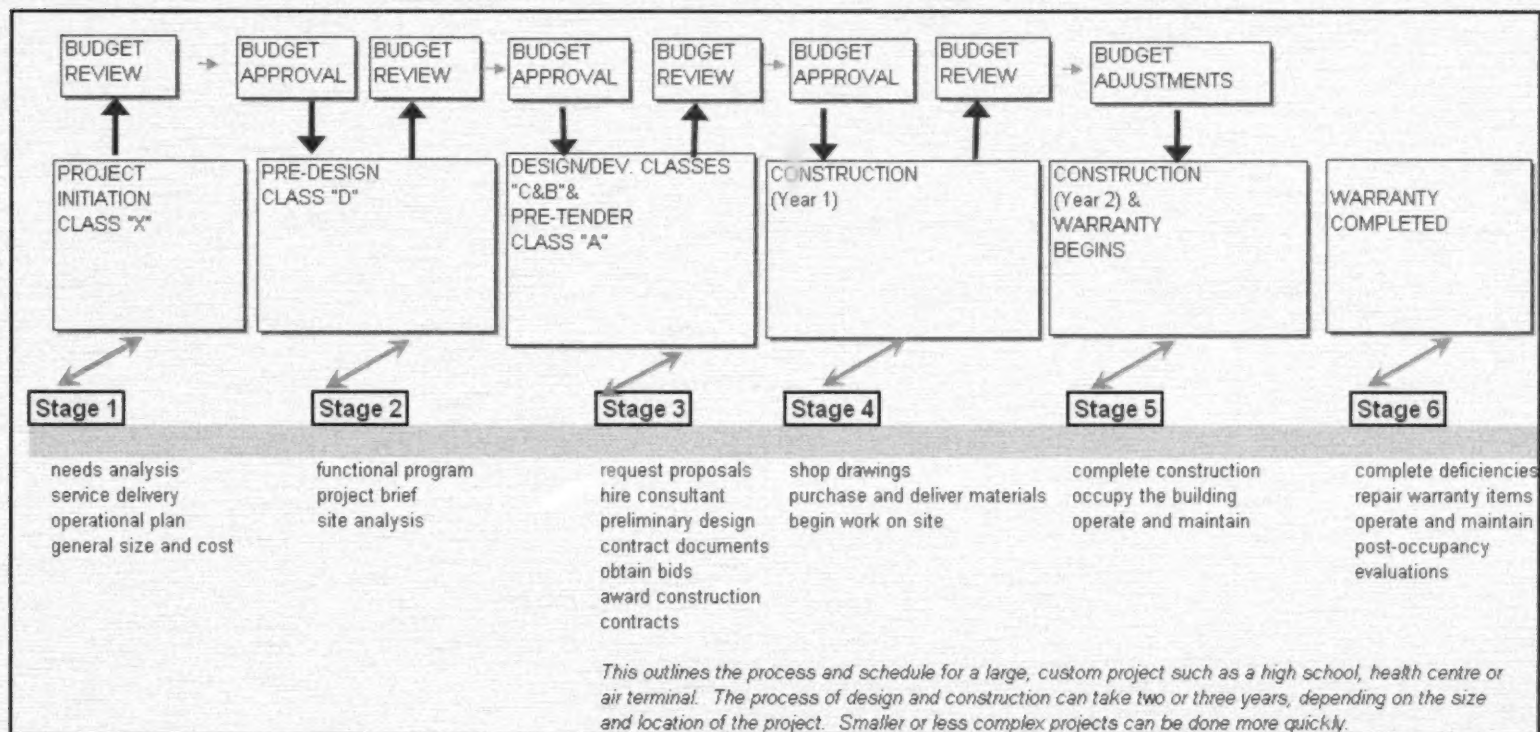
- ▶ **Capital planners and program managers in government.**
- ▶ **Directors and managers of related boards and agencies with capital projects.**

CGS is a service department. We deliver quality services to satisfy the needs of our clients, and provide value for government, business, communities and residents.

Values

- Our clients are important to us.
- We work as part of a team.
- We believe that good service saves money.
- We believe that quality provides lasting value.
- We promote the development of Nunavut business and the employment of Nunavut workers.

The Project Delivery Process

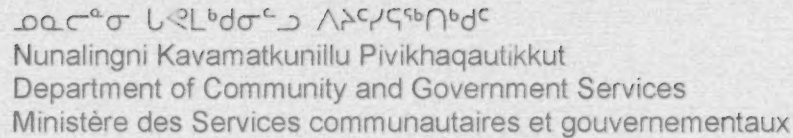




Stage 1: PROJECT INITIATION

This is when the need for the project is first defined, and the approximate size and cost of the facility are determined. From the client's point of view, this is when most of the critical decisions about the project are made.

Lead Role	Tasks
Client	Define the services to be delivered in the facility. For example, what level of diagnostic and treatment services are required in a new Health Center.
Client	Conduct a needs analysis to determine the number of users, basic demographic information, and future trends.
Client/CGS	Outline the rooms and areas required. For government projects, these are determined by Capital Standards and Criteria.
Client/CGS	Consult with the community about service issues.
Client/CGS	Examine some site alternatives, and select and obtain the preferred site.
Client/CGS	Consider some development options such as renovation, adding on to an existing building, new construction, or a joint use facility.
CGS	Establishment of initiation cost estimate for early budget projections- CLASS "X".



Most of the work in the project initiation stage , by its nature, must be provided by the client, however CGS can help in several ways:

The Facility Planning team at CGS has extensive experience with a wide range of building types, and can help clients develop or refine 'Capital Standards and Criteria'.

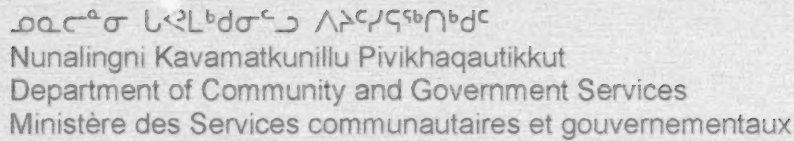
Technical assessments can determine if existing buildings can be renovated or expanded, and outline the scope of work needed to meet current code requirements.

CGS has cost data for a wide range of projects across Nunavut, and a quantity surveyor on staff to help establish realistic budgets. Cost Estimates are identified by Cost Estimate Class – a different estimate class is required during each stage of the project completion. A brief definition, describing each Cost Estimate Class, is as follows:



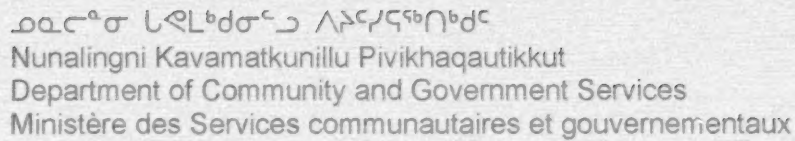
Cost Estimates Continued...

- **Initiation Stage – Estimate Class “X”** - This is the first stage in the project cost estimate process. This cost estimate class is prepared based on a general concept with no design information - e.g. request made for a three-storey building of approximately 600 m² in size.
- **Pre-design Stage - Estimate Class “D”** - a Project Brief is developed, using information gained from past experience or projects and incorporates developed STANDARDS & CRITERIA. This is then submitted to the client for review and decision whether or not to proceed with the project.
- **Conceptual Design Stage – Estimate Class “C”** – design decisions are made at this time, including completion of 10% - 60% of project drawings; life cycle costs are reviewed and “Value Management/Engineering is considered. The Pre-Design stage is taken into consideration at this point and the Class “D” Estimate is adjusted accordingly to suit the information being produced for the design report.
- **Design/Development Stage – Estimate Class “B”** - this is prepared by the Designer/Consultant after the selection of both the building configuration and building systems. The Consultant at this stage has outlined the specifications and design drawings for the project. This should be the estimate upon which the final financial decision is made.
- **Pre-Tender Stage – Estimate Class “A”** – a Cost Report is submitted at the end of this stage, which provides confirmation that tenders will be within the cost limit. This Cost Estimate is used as an elemental cost analysis for use on future projects and includes a trade breakdown for use during the construction period.



Project initiation focused on service delivery and operational planning. Stage 2, detailed project planning, develops a more detailed set of facility requirements.

Lead Role	Tasks
CGS/Client	Develop a functional program (a description of the rooms and zones in the building and how they will be used).
CGS/Client	Consult with the community on program issues, as well as business development, employment and training.
CGS	Identify any special technical requirements.
CGS	Conduct geotechnical and environmental investigations, and legal and topographic surveys as required.
CGS	Determine the best delivery method for the project, such as; public tender, negotiated contracts, design/build, lease.
CGS	Update cost estimates and schedules for CLASS "D".
CGS	Assemble information (service delivery, operational plan, functional program, schedule and budget) into a project brief.
Client	Have budget approval to proceed with design and tender.



✓ Functional Programming

✓ Community Consultation and Delivery Methods

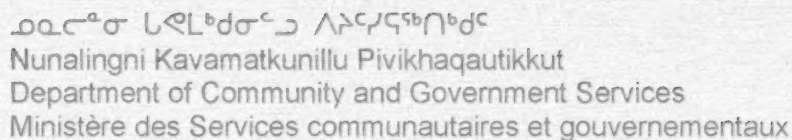
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Stage 3: DESIGN

Once the detailed planning is complete and a project brief is prepared, the next stage is to hire architects and start design, consistent with budgeting approval.

Lead Role	Tasks
CGS	Request proposals from architects and engineers (Consultant).
CGS/Client	Evaluate the proposals, select the successful consultant and award the contract.
Consultant	Prepare several different conceptual design alternatives.
CGS/Client	Review the conceptual design alternatives and choose the viable options. This is a good time for community consultation.
Consultant	Prepare a schematic design package including site plans, floor plans, cross sections, facades, structural systems, simple diagrams of mechanical and electrical systems and cost upgrade estimates for CLASS "B".
CGS/Client	Review and approve schematic design. Community consultation may be needed here as well.
Consultant	Prepare a design development package, which includes a specification as well as more detailed drawings and a more detailed cost estimate.
CGS/Client	Review and approve design development.
Consultant	Prepare detailed contract documents (plans and specifications) that will be used for tender and construction, along with a detailed pre-tender cost estimate CLASS "A".
CGS/Client	Review and approve contract documents.
Client	Have funding approved for tender, in accordance with CLASS "A" construction estimate and total project requirements.



✓ Consultant Selection

✓ Design Review

✓ Financial Management

Preliminary design for park buildings



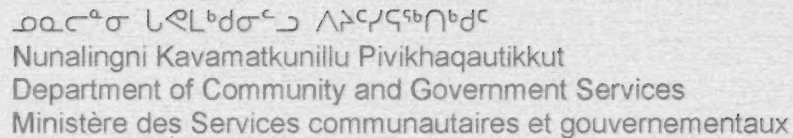
Stage 4: TENDER

At this point the project has been designed, and funding for construction has been approved. The next step is to get bids from contractors and award construction contracts.

Lead Role	Tasks
CGS	Advertise the project, and distribute drawings and specifications to contractors.
CGS	Issue addenda if required.
CGS	Consider and approve contractors' requests for options and substitutions.
CGS	Receive and evaluate bids. Negotiate reductions if required.
CGS	Administer the Nunavummi Nangminiaqtunik Ikajuuti or "NNI Policy", which applies to all projects that receive at least half of their funding from the Government of Nunavut.
CGS	Award construction contracts.

How can CGS help with tender and negotiation?

CGS can provide all of the services outlined in the tender and negotiation stage. In particular, CGS can help negotiate reductions if the prices are over budget and administer the Nunavummi Nangminiaqtunik Ikajuuti or "NNI Policy".



Construction can begin once the contracts are awarded.

Lead Role	Tasks
Consultant	Review and approve contractor's shop drawings.
Contractor	Purchase materials. Large pieces of equipment such as ventilation units can take 4 months from the date of order until they're ready for delivery.
Contractor	Deliver materials to the site. by barge or sealift, often limited to one or two boats per year. If shipping deadlines aren't met, the only alternative may be airfreight, which is generally much more expensive.
Consultant/ CGS	Inspect the progress of construction to ensure that the work is being done according to contract.
CGS	Review contractor's progress billings and make payments.
CGS	Review contractor's and consultant's claims, and issue change orders as required.
CGS	Administer consultant and construction contracts.
CGS	Construction may take two or more fiscal years to complete. If so, budgets for future years must be identified, and funding approved.
Client/CGS	Select and tender furniture and equipment packages.
CGS	Determine when the building is substantially complete and ready for use.
Client	Have budget approval for the warranty period.



How can CGS help during construction?

✓ Insurance

CGS can provide economical construction insurance under a single policy that includes all government projects.

✓ Contract Management

CGS can manage the services provided by the architects and engineers during construction, and administer the construction contracts.

✓ Claims

The contractors and consultants may submit claims for extra costs during the course of construction. CGS can provide qualified review of these claims based on technical merit and contract law, and issue change orders if required.

✓ Financial Reporting

CGS can provide the client with regular financial reports and cash flow estimates.



Stage 6: WARRANTY

After construction is substantially complete, the building is ready for the client to use. However there may be some minor deficiencies to complete, and the building will be under warranty for one year or more.

Lead Role	Tasks
CGS/Client	Arrange installation of furniture and equipment
CGS	Arrange installation of computer networks, telephone systems etc.
CGS	Ensure the contractor completes any construction deficiencies and complete seasonal work.
CGS	Monitor the performance of the building, and notify the contractor of any work that falls under the contractor's warranty.
CGS	Evaluate and trouble shoot the physical operation of the building.
CGS	Administer the contractors' and consultants' contracts, and make payments as required.
CGS	Develop and carry out a regular maintenance program.
CGS	Set up contracts with utility companies and make payments, where requested
Finance	Purchase and maintain insurance policies.



Services available from CGS after the building is occupied

✓ Operations and Maintenance

CGS has qualified maintenance staff in most communities. CGS can also prepare estimates for operations and maintenance in order for the client to have appropriate budgets approved.

✓ Furniture and Systems

CGS can help select and purchase furniture and equipment, and install computer networks and similar systems.

✓ Contract Administration

CGS can manage the contractors' and consultants' work while the building is under warranty.



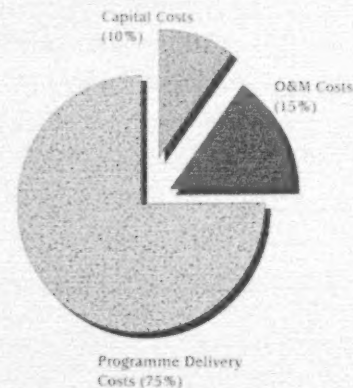
Life Cycle Costs

The initial capital cost of a project is only part of the equation. Over the long term, the cost of delivering programs and operating and maintaining the building will be much higher.

Capital Costs	Program Delivery Costs	O&M Costs
<ul style="list-style-type: none"> • design fees and expenses • construction contracts • management costs • survey and drilling costs • contingencies • furniture and equipment 	<ul style="list-style-type: none"> • staff salaries and benefits • supplies and equipment • custodial services • travel and expenses 	<ul style="list-style-type: none"> • fuel, electricity, water, sewage • snow removal, garbage disposal • routine maintenance • repairs • periodic repainting, new flooring etc. • insurance.

Capital costs are a small portion of the total life cycle costs of a building. The best way to save money is to plan for efficient service delivery, followed by economical operation and maintenance.

Every effort to reduce capital costs should be made, however, capital costs should not be reduced at the expense of producing an inefficient building that will increase costs for program delivery and O&M.





Conclusion

Community and Government Services is ready to work on your next project. We can assist you with the planning, design, construction, warranty and post-occupancy stages of a project to ensure the facility will meet your program needs and budgetary realities. We can work to keep project dollars here in the north by promoting northern businesses and local workers. We can also put effective management tools in the hands of communities to support program transfers to the community level.